



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,747	01/20/2004	Joshua E. Rothenberg	000392-804	2870
26294	7590	02/13/2006	EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.			NGUYEN, DUNG T	
1300 EAST NINTH STREET, SUITE 1700				
CLEVEVLAND, OH 44114			ART UNIT	PAPER NUMBER
			2828	

DATE MAILED: 02/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No. 10/761,747	Applicant(s) ROTHENBERG ET AL.	
	Examiner Dung (Michael) T. Nguyen	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) 4-6 and 10-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,7 and 9 is/are rejected.
- 7) ☒ Claim(s) 2 and 8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>01/20/04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 4-6 and 10-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species of Group II and III, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/20/05.

Specification

The disclosure is objected to because of the following informalities: on page 3, paragraphs 0006-0007, linear crystals should be nonlinear crystals (typographical error).

Appropriate correction is required.

Claim Objections

Claims 1 and 3 are objected to because of the following informalities: linear crystals should be nonlinear crystals (typographical error). Appropriate correction is required.

Claims 1 and 7 are objected to because of the following informalities: the integer of “n” in “nw” is not defined in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2828

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Rice et al. (5832006).

With respect to claims 1 and 7, Rice et al. show in Fig. 2A and 10 a laser array architecture, comprising:

an array of laser fiber amplifiers (420),

a master oscillator (320) generating a pump signal at a fundamental frequency w (it is understood that a signal got to have a frequency),

means (330 and 410) for coupling the pump signal into each of the laser fiber amplifiers, at least one array of **nonlinear** crystals (450) functioning as harmonic generators (column 11, lines 46-50),

means (lines from 420 to 450) for coupling amplified pump signals from the laser fiber amplifiers into respective **nonlinear** crystals, which generate an array of output sub-beams at a desired harmonic frequency nw (column 11, lines 46-50);

means (430) for detecting phase differences in the output sub-beams; and

a plurality of phase modulators (27) (Fig.2A) for adjusting the phases of the laser amplifier input signals in response to the detected phase differences (column 10, lines 9-24), resulting in phase coherency among the output sub-beams (column 11, lines 46-50).

Art Unit: 2828

With respect to claims 3 and 9, Rice et al. disclose the at least one array of linear crystals comprises a single array of linear crystals functioning as second harmonic generators (SHGs), and the output sub-beams are at the second harmonic frequency 2ω (column 11, lines 46-50).

Allowable Subject Matter

Claims 2 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Rice et al. fail to disclose the limitations as recited in the claims 2 and 8.

Communication Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung (Michael) T Nguyen whose telephone number is (571) 272-1949. The examiner can normally be reached on 8:30 - 17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3329.

Michael Dung Nguyen ✓

Michael Dung Nguyen

01/26/08